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ABSTRACT

The Virginia Community College System established an ad hoc committee to review its testing program. Each member college was polled as to the areas of skills, potential, or aptitude it desired measured in each of seven curricula areas. The detailed responses of each college are included in the report. The committee established the following criteria for its study of tests proposed for adoption: coverage in the areas of a diagnostic test of reading skills, a diagnostic test in mathematics, vocational and academic interest areas, general intelligence, and scholastic aptitude; cost; reliability and validity; and research usefulness. On the basis of the criteria several proposed tests were eliminated (the proposed tests are listed) and the following were selected for detailed study: the American Ccllege Test (ACT), the Comparative Guidance and Placement Profile (CGP) of the College Entrance Examination Board, and the Junior College Placement Profile (JCPP). An extensive analysis of each of the tests in each of the criterion areas is included. The committee recommended the adoption of the CGP for 1970-71. (DG)

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VIRGINIA COMMUNITY COLLEGE SYSTEM

AD HOC COMMITTEE ON TESTING

SUMMARY REPORT

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FEBRUARY 1970

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SUMMARY REPORT

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VIRGINIA COMMUNITY COLLEGE SYSTEM

Dana B. Hamel, Chancellor

MEMBERSHIP

OF

AD HOC COMMITTEE ON TESTING

Chairman: Marshall Denison, Associate Director for Student Services

Membership:	College Association:
Mrs. Sibyle Ferrell	New River Vocational Technical School
Mrs. Elizabeth Grizzard	Northern Virginia Community College
Mrs. Mary M. Guines	John Tyler Community College
Mr. Joseph W. Hamer, Jr.	Dabney S. Lancaster Community College
Mr. Kenneth D. Helm	Danville Community College
Mr. Armand M. Opitz	Southwest Virginia Community College
Mr. M. Douglas Reed	Central Virginia Community College
Mr. Gary R. Zick	Blue Ridge Community College

The membership of this committee was recommended by the Deans of Student Services at each community college and vocational-technical school included in the Virginia Community College System in the spring of 1969. The committee was formed from the recommendations received in the State Department of Community Colleges from the respective college Deans of Student Services.

I. History: The General Assembly for the Commonwealth of Virginia established the Virginia Community College System. This System began operation on July 1, 1966, with two colleges, Northern Virginia Community College and Virginia Western Community College. At that time, an agreement between the community colleges of Virginia and the American College Testing Program (ACT) was reached which permitted many of the students in the community colleges of Virginia to be tested.

As the System grew and new colleges were added, the Deans of Student Services became concerned with the testing program and discussed this concern at several of the meetings of the Advisory Commitee of Deans of Student Services. Acting upon an advisory committee's recommendation that an ad hoc committee be formed to investigate the testing program, the Dean of Student Services at each college had the opportunity to recommend one person from the college to serve on this committee. An eight member ad hoc committee was established comprised of professionals with varying educational experience: a former university psychometrician, a medical college admissions officer, a counselor with experience in an admissions office of a major Eastern university, along with people who had high school experience and professional courses in Educational Psychological Testing.

II. Statement of Purpose: (Derived from Deans of Student Services and from the memorandum dated March 6, 1969, from Marshall Denison to

Ad Hoc Committee on Testing.)

> "The Deans of Student Services requested that an ad hoc committee be formed in the late winter or early spring of 1969 to investigate the testing program with reference to curriculum placement. This ad hoc committee was charged with investigating the current testing programs in the community colleges in Virginia, the testing programs in other community colleges around the country, and an investigation of major student testing company products. The results of this investigation should lead to a report with specified recommendations concerning a placement test or tests for the community colleges of Virginia in the academic year 1970-71. The Deans of Student Services further requested that this report be presented to them no later than June 30, 1969."

III. Procedure: The procedure the committee followed in developing its study of available testing programs is summarized from the minutes of the committee meetings. When the committee met on March 7, 1969, it "determined the approach to screening various available testing programs. A format for comparison of the various tests under consideration is reflected in Tables 2 through 6. This will provide a concise analysis of the variables affecting selection of an appropriate placement test."

The test publishers of community college level testing programs were contacted by Doctor Denison's office to request specimen sets of the test programs they considered relevant for the purposes of placement. Specimen sets of all tests considered were examined individually by each member. Tests nominated for screening include those by Science Research Associates, American College Testing Program, Houghton-Mifflin Company, College Entrance Examination Board (Comparative Guidance and Placement Program and others), Psychological Corporation, and the General Aptitude Test Battery.

As an effort to establish relevant placement test criteria, the committee sought information from appropriate personnel in the

instructional areas. Also, the committee reviewed relevant research data available from institutions within Virginia as well as other state community college systems.

The committee next met on April 10, 1969. Members of the committee received and reviewed tests submitted by major companies and organizations. Other tests, although not formally submitted by companies and organizations, were also discussed. The criteria considered to be adequate by the committee included:

1. Diagnostic test of reading skill
2. Vocational and academic interest areas
3. A measure of general intelligence
4. Diagnostic ability in mathematics
5. Scholastic aptitude
6. Cost
7. "Credentials" - Validity and reliability of the testing program. Research usefulness.

IV. General Conclusions: (Derived from minutes of committee meeting on April 19, 1969.

"After investigating these individual instruments and also the information sent to the committee (by the community colleges of the levels of testing that the instructional area felt would be necessary to meet their particular programs), the committee made the following recommendations:

1. That the Comparative Guidance and Placement Program of the College Entrance Examination Board be adopted for the academic year of 1970-71. This recommendation was made after an exhaustive study of the other tests that were currently available in the field and the comments such as those listed above were noted.

2. That Doug Reed and Armand Opitz prepare a report to the Deans of Student Services, to the Presidents, and to the community through publication by the State Department of Community Colleges to enable these groups to know what went into the decisions that were made, what effected these decisions, and what is planned to implement these decisions. (The basic report is contained herein.)

3. That College Entrance Examination Board be approached to assist in the development and understanding of the Comparative Guidance and Placement Program in the communities of Virginia. This assistance would come in the form of a personal visit to the community colleges in Virginia and to their local boards to explain to the citizenry of the community colleges the reasoning behind the proposed change.

4. That this ad hoc committee on testing be a standing committee, reporting to the Associate Director for Student Services at the request of the Advisory Committee of Deans of Student Services in subsequent years to investigate and follow up with the testing program.

5. That College Entrance Examination Board help further validate the instrument by financially supporting studies at Central Virginia Community College and Southwest Virginia Community College to administer the Comparative Guidance and Placement Battery to the fall entering freshman class of 1969 at no cost to the institution.

6, That the State Department of Education be contacted and requested to consider including in the high school testing program in the Commonwealth of Virginia the administration of the DAT and a vocational interest test in the 11th and 12th grades."

IV. Specific Evaluative Process

A. Review of general instructional areas for placement criteria:

The committee requested division coordinators in the community colleges of Virginia to recommend in writing the areas of skills, potentials, or aptitude to be measured by the test which the system of community colleges would adopt. Table 1 is a copy of the format used to elicit the recommendations from the division coordinators. Appendix I includes recommendations received from the instructional areas, listed both by college and the program within the college. The instructional area agreed that although individual colleges may differ in the particulars, the overall requirement for adoption of a test should meet the criteria established by the committee and listed above. The committee agreed

generally that the most difficult areas to investigate and/or to predict accurately were the vocational/technical. Many of the colleges had limited enrollment making it difficult to determine predictive validity.

The consensus of professional opinion from the coordinators concerned was the prediction of aptitude and interest in their specific educational areas. Of the seven criteria, the three which seemed of most concern to the division coordinators were scholastic aptitude, vocational interest, and general mental ability.

B. Tests or Programs considered in depth by the Ad Hoc Committee on Testing:

1. American College Test, published by American College Testing Program*

2. Comparative Guidance and Placement Program, published by College Entrance Examination Board*

3. Junior College Placement Profile, published by Science Research Association, Inc.*

4. Proposed as a battery: College Qualification Test, published by Psychological Corporation*

   Davis Reading Test, published by Psychological Corporation*

   Survey of Study Habits and Attitudes, published by Psychological Corporation*

   Differental Aptitude Test - not recommended by Psychological Corporation but considered by committee

5. Proposed as a battery: Nelson-Denny Reading Test and Henmon-Nelson Test of Mental Ability, published by Roughton-Miff

6. General Ability Test Battery prepared by U. S. Employment Service

*Submitted by this organization for consideration by the Ad Hoc Committee on Testing.

The tests eliminated from in-depth consideration included:

1. College Qualification Test
2. Davis Reading Test
3. Survey of Study Habits and Attitudes
4. Differential Aptitude Test
5. Nelson-Denny Reading Test
6. Henmon-Nelson Test of Mental Ability
7. General Aptitude Test Battery

It was felt that these tests did not meet a sufficient number of the criteria established by the Ad Hoc Committee on Testing for a comprehensive battery considered essential for incorporation within the final review. This in no way implies that they may not have value for specialized needs in individual community colleges. Some of the tests eliminated have been used in the community colleges of Virginia in a supplemental manner and may find further use in these colleges in the future.

In excluding these tests, the committee was mindful of the need for a comprehensive test battery adequately normed on a community college population. The comprehensive community college norms were sought for consideration by the committee.

Accordingly, the committee briefly considered and discarded the idea of combining several of the instruments. However, such a combination of different tests probably would not reflect desirable (i.e. common) norming. Also, it was felt that such a combination may lead to inefficiency in terms of testing time and administration, excessiveness in cost, and unamenableness to research.

V. Other Points of Consideration: Upon compiling this data reviewed by the Ad Hoc Testing Committee, it became apparent to this committee that better articulation between Virginia's community colleges and senior colleges requiring specified national test scores was imperative. This would assist the community college transfer student by requiring only one test battery.

Since the Ad Hoc Committee on Testing has recommended the Comparative Guidance and Placement Program for use in the community colleges of Virginia, we would suggest that the College Board encourage senior institutions which require the Scholastic Aptitude Test to permit the relevant subtests of the Comparative Guidance and Placement Program in lieu of the Scholastic Aptitude Test.* A possible guide for this may be found in the School and College Ability Test manual which suggests conversion scores for School and College Ability Test and Scholastic Aptitude Test. (Page 44, 1957 School and College Ability Test manual for interpreting scores.)

*Special Note: Since the College Entrance Examination Board sponsors The Scholastic Aptitude Test and the Comparative Guidance and Placement Program, this may be a very feasible project.

Table 1 - Questionnaire for Coordinators
(Please complete this so that we may have some data as to the kinds of measures you believe are desirable in a statewide tests program in selecting students for your area.
Please return by 4/6/69)

PROGRAMS OFFERED BY SYSTEM	WHAT ARE THE AREAS OF SKILLS, POTENTIAL, OR APTITUDE TO BE MEASURED?
Business Science	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
Engineering Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
Health Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
Communications & Humanities	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
Natural Science & Math	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
Public Service Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
Social Science	
a. Two-year programs	
b. One-year programs	
c. Less than one year	

SPECIAL NOTE:

This questionnaire was completed by instructional division personnel in each of the Virginia community colleges.

Table 2

Test or Program Considered	Norm Group(s)	Credentials	Predictive Studies	Amenability to Research
ACT	Unsatisfactory Va. State-wide norms for transfer students for placement purposes. Note 1*	Studies over the last 2 years are available. Value of them is debated. Some community colleges find them satisfactory. Nat'l Test Credentials seem adequate.	ACT has conducted numerous predictive studies both on battery and subtests. (See Note 1)	Yes
CGP	Limited norming in 2 Va. community colleges. However, extensive Ga. Vo-Tech study appears to be similar to our norm Nationwide sample of 114 2 yr. colleges including 2 Va. colleges.	*Projected for Va. 3 local studies completed National studies seem adequate.	Norming was 1st phase of program. Ga. Vo-Tech study suggests promising predictive value. Generalized prediction based upon national sample available.	Yes
JCPP	Norming is inadequate.*	*Validity studies are provisional; data for Virginia is "inferred"	"Norms were obtained by equating the placement. p.4 of interpretive manual. Possibility for local norms.	Yes

Note 1 - Virginia Community College System has an objective of comprehensive program offerings. Currently the System has an approximate 60% of its students in vocational/technical programs. Placement of students in vocational/technical programs is a major desired objective for a comprehensive test battery to be used by the Virginia System.

*Starred data are comments which were offered at the Ad Hoc Testing Committee's evaluative meeting.

Table 3

st or Program nsidered	English Skills Measure	Reading Skills Measure	Mathematics Skills Measure	Vocational & Academic Interest	General Intelligence Measure	Differential Aptitude Measure	Others - Specifics Enumerated
C.T.		*Not diagnostic	*Not diagnostic	Separate int. test. (well-normed) HVPI available at extra cost*	Composite score may serve as a general indicator	In the process of development. TSJC participated in the initial phase last Oct.	
G.P.	Yes, verbal & sentence Diagnostic for	Yes, is diagnostic* sub-groups of	*Adequate - has both Algebra and Arithmetic students	*Voc. & academic int. is measured	Not available as separate score. Yes, can be derived	Yes, several differential measures of aptitude. A major positive feature	*Students in transfer programs at this time would need take ACT or SAT. Academic motive score available
C.P.P.	English usage	Discriminates at lower ability level*	Discriminates at lower ability level*	The revised Kuder Voc Preference Inventory (Form DD) although more adequately validated is optional for extra cost.*	Ed Ability Test - IQ	No plans indicated for development	*There is no transfer ability to senior institutions & no more to make it acceptable to them.*

Table 4

t or Pro- m Considered	Age of Program	Student Cost	Cost to Institution	Procedures	Time Adm.	Time Scoring	Services Available
A.C.T.	2 yrs. for VCCS. Somewhat older nationally.	*6.00 to student	None other than administrative time* (optional interest measure)	Counselor administered on national test dates. Can be residually tested if desired.	3½ hrs.+20 minutes for optional interest measure. 35¢ if counselor scored. $1.00 ea. if machine scored.	2-4 weeks*	Individual score report. Institute norming. Punch card services. Biographical Summaries, Financial Aid Grants and Planning Information Cluster Norms.
C.G.P.	New* Operational April 1969. Experimental Program for 2 yrs.	$3.75 per test to student or institution.	None	May be administered residually at local convenience.	About 4 hrs.	2-4 weeks, 1 week fast scoring service available at 25¢ per test additional cost.	Provides freshman student profile for both enrolled and non-enrolled students. Information is available for the total group and sub-groups. Research services are excellent. May compare up to 9 sub-groups within the college and a summary analysis for the total group. A family financial statement is provided that is much simpler and easier to complete than some other devices at the present time.
J.C.P.P.	New as a proposed battery. Academic placement battery based on I.T.E.D. which has been in use some time nationally. Kuder DD renormed, also new.	No data regarding cost provided by representative or literature. Either individual or institutional.		May be administered residually at local convenience.	4 hrs.	2-4 wks.	Normative data of tabular nature for the institution.

Test or Program	Usefulness in Counseling
American College Test	Report form is coded rather than descriptive; however, the New Profile Sheet - 1969-70 is much easier to interpret than the cards that were formerly used. Data provides indications of financial need, high school achievement, aspirations, vocational choice, and other demographic data. ACT provides both local and national norms. ACT provides predictive information in terms of chances in 100 of earning a "C" or better in at least 4 areas of courses, depending on previous research. Of assistance to the counselor is the assistance guide which indicates student requests for special help--financial aid, personal counseling, reading skills, educational and career planning, and one specific local question.
Comparative Guidance & Placement Program	Profile sheet provides scaled scores and national percentiles. A unique feature of special value in counseling is found in the "performance forecast" which is an expectancy table prepared from either local or national data in understandable form for the ultimate consumer--the student. Of assistance to the counselor is the assistance guide which indicates student requests for special help--financial aid, personal counseling, reading skills, educational and career planning, and one specific local question. This statement is also applicable to ACT.
Junior College Placement Profile	Results are tabular in nature as opposed to descriptive. A disadvantage is that there are several pages of information for the group rather than a single sheet for an individual.

Table 6

Test or Program Considered	Major Purpose of Test
merican College Test	"The Program regularly collects, processes, analyzes, and reports information for use in educational planning by college-bound students, their high schools, and colleges. Its principal function is to transmit timely information that is particularly relevant to educational planning during the period of transition from high school to college. A.C.T. provides those services which are educationally important, which are of direct value to the students and schools, and which capitalize on the advantages of electronic data-processing equipment. The main purposes of these services are to: 1) provide estimates of a student's academic and nonacademic potentials that will be useful in the admissions process 2) provide dependable and comparable information for precollege counseling in high schools and for on-campus educational guidance 3) provide information useful in granting scholarships, loans, and other kinds of financial assistance 4) help students present themselves as persons with special patterns of educational potentials and needs." (Source - Using A.C.T. on the Campus, '68-69, p.2.)
omparative Guidance & Placement Program	"Basic to better guidance is helping the student know himself - his interests, abilities, attitudes, and aspirations. The CGP program collects, organizes, and analyzes such information, then reports it to two-year college students and their institutions in time to help them with course program decisions. Unlike many test programs in current use, the focus of the CGP program is on guidance and placement rather than selection. The purposes of the program are: 1) to help students make educational decisions and career choices that offer reasonable expectation of success 2) to help colleges learn more about students seeking, entering, completing various curriculums 3) to help colleges place students in appropriate English, mathematics, and other courses 4) to help colleges identify students who would benefit from remedial programs or courses in basic study skills 5) to help colleges identify students who may need financial aid, 5) to provide colleges with information useful in planning curriculums that will meet the educational needs of both the student and the community." (Source - Comparative Guidance and Placement Program Announcement, p. 2-3.)
unior College Placement rofile	"The Junior College Placement Program is placement-oriented, multilevel, and flexible. It is placement-oriented because junior colleges, with their open-door policies, are not abbreviated versions of four-year institutions. Applicants vary widely in ability, and the major question is not "Who should be admitted?" but "What level of instruction is appropriate for this student?" Many tests designed to help answer the first question are of little help in answering the second. For example, some inferences can be drawn about a student scoring at the change level in mathematics. We know he performed poorly, and if we know the content of the test, we know something about what he cannot do. But we do not yet know what he can do, and therefore we do not know the appropriate starting point for additional instruction. The tests of the JCPP were designed to provide such information." (Source - Junior College Placement Profile Interpretive Manual, p.2.)

BLUE RIDGE COMMUNITY COLLEGE - Weyers Cave, Va. 24486

PROGRAMS OFFERED BY SYSTEM	WHAT ARE THE AREAS OF SKILLS, POTENTIAL OR APTITUDES TO BE MEASURED?
1. Business Science	
a. Two-year programs	Typewriting ability, shorthand facility
b. One-year programs	Same
c. Less than one year	
2. Engineering Technology	
a. Two-year programs	Proficiency in Math
b. One-year programs	
c. Less than one year	
3. Health Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
4. Communications & Humanities	
a. Two-year programs	Ability to write expository prose coherently and correctly. Ability to read accurately and with acceptable degree of appreciation
b. One-year programs	*Ability to punctuate and to avoid gross grammatical errors in writing; some ability to organize material into paragraphs. *Ability to read with acceptable accuracy, with emphasis on vocabulary, comprehension of plot.
c. Less than one year	
5. Natural Science & Math	
a. Two-year programs	Proficiency in Math
b. One-year programs	
c. Less than one year	
6. Public Service Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	

*Note: Considered applicable to all programs

7. Social Science

   a. Two-year programs

   b. One-year programs

   c. Less than one year

CENTRAL VIRGINIA COMMUNITY COLLEGE

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science a. Two-year programs b. One-year programs c. Less than one year	1. (a) Math, English, Reading Interest tests would be appropriate as most Business programs are vocational. In the area of secretarial courses, the proficiency of shorthand can often be determined through English scores and typewriting ability, when available.
2. Engineering Technology a. Two-year programs b. One-year programs c. Less than one year	2. General Intelligence Mathematical Achievement Vocational Interest Mechanical Ability (Abstract Reasoning) Communication Skills
3. Health Technology a. Two-year programs b. One-year programs c. Less than one year	3. General Intelligence Vocational Interest Mechanical Ability (Abstract Reasoning and Finger Dexterity) Communication Skills
4. Communications & Humanities a. Two-year programs b. One-year programs c. Less than one year	4. My primary concern is that beginning students in any of these categories be tested in the area of verbal skills so that, regardless of their proposed curriculum, they can be appropriately placed in foundation or credit English. I am sure, too, that tests in the areas of math, science, and the social sciences are important for similar reasons. Any other aptitude tests which help the counselors to advise them would be appropriate. It seems to me that, particularly in the case of students entering college transfer programs, we should probably require the aptitude tests of CEEB.
5. Natural Science & Math a. Two-year programs b. One-year programs c. Less than one year	5. I feel that the present testing system is satisfactory.
6. Public Service Technology a. Two-year programs b. One-year programs c. Less than one year	

7. Social Science

   a. Two-year programs

   b. One-year programs

   c. Less than one year

In general, it seems that at CVCC the ACT has, along with other indicators, given the counselors an adequate instrument to permit them to make appropriate placement of students into foundation or credit English; at least we in the English department have no real complaints. Our counselors are well-trained in testing and in general I would prefer to rely on their judgment rather than my own.

L. T. Overby
Acting Dean of Instruction

Central Virginia Community College
Wards Road South, Post Office Box 4098
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Lynchburg, Virginia 24502

Dabney S. Lancaster Community College

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science	
a. Two-year programs	Test to determine the general mathematical and verbal competence for students in both the one-year and two-year program.
b. One-year programs	
c. Less than one year	
2. Engineering Technology	
a. Two-year programs	General Math and Mech ability.
b. One-year programs	
c. Less than one year	
3. Health Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
4. Communications & Humanities	We presently give and are satisfied with the results of the following: Missouri English Test ---
a. Two-year programs	All Students: Nelson-Denny Reading Test, Iowa Silent Reading, Spitzer Study Skills, Diagnostic Reading and Locally Developed Writing Sample
b. One-year programs	On the basis of the results students are placed in the foundations programs when warranted.
c. Less than one year	
5. Natural Science & Math	
a. Two-year programs	General Math achievement as measured by the ACT. This is applicable to both types of programs.
b. One-year programs	
c. Less than one year	
6. Public Service Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	

7. Social Science	
a. Two-year programs	
b. One-year programs	
c. Less than one year	

PROGRAMS OFFERED BY SYSTEM	WHAT ARE THE AREAS OF SKILLS, POTENTIAL, OR APTITUDES TO BE MEASURED?
*1. Business Science a. Two-year programs b. One-year programs c. Less than one year	*Two-year Programs A.S. Business Administration No particular skill other than academic ability will be measured for these students. However, a good background in mathematics and English are essential for success in the program generally and especially in accounting.
2. Engineering Technology a. Two-year programs b. One-year programs c. Less than one year	A.A.S. Accounting Primary objective of this program is for the student to obtain skills and competences that would enable him to enter employment at at least a junior accountant level. In any courses requiring accounting a student should be competent in mathematics, logical reasoning, and should have the ability to read and interpret meanings.
3. Health Technology a. Two-year programs b. One-year programs c. Less than one year	A.A.S. Business Management The student should possess the same skills or aptitudes as in accounting. He should also have the ability to get along with people and to be able to "handle people."
4. Communications & Humanities a. Two-year programs b. One-year programs c. Less than one year	A.A.S. Data Processing Success in this program requires a high degree of skill in logical thinking. The only way to test this would be through testing the student's ability in mathematics. He should also have a high degree of reasoning ability. Because of his work on the machines he should have manipulative ability.
5. Natural Science & Math a. Two-year programs b. One-year programs c. Less than one year	*One-year Programs Accounting (Certificate) The student should possess basically the same skills in this program as in the two-year program. His training is somewhat of the same nature as in the two-year program just not as advanced.
6. Public Service Technology a. Two-year programs b. One-year programs c. Less than one year	

7. Social Science

   a. Two-year programs

   b. One-year programs

   c. Less than one year

Data Processing (Certificate)
(This program has not yet been approved but will be in our 1969-70 catalog). As in the one-year Accounting program, the student should possess the same skills as he would in the two-year Data Processing program. Since this is basically a machine operator's program, he probably should have a high degree of skill in manipulations and finger dexterity. These people should be able to follow "cookbook" like instructions.

Secretarial Science (Certificate)
A secretarial student should possess very high verbal qualities, have the ability to create, and be mature enough to accept a high degree of finger dexterity and be well coordinated because of the use of machines. Spelling and mathematical competences are also very important.

Danville Community College

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science a. Two-year programs b. One-year programs c. Less than one year	In the occupational-technical areas of instruction a measure of the skills or aptitudes listed below have proven helpful in student selection and counseling over a period of approximately 15 years. These skills can be measured by the General Aptitude Test Battery or other series of tests geared to measure these aptitudes. 1. General learning ability 2. Numerical 3. Verbal Aptitude 4. Spatial 5. Form perception 6. Motor coordination 7. Finger dexterity 8. Manual dexterity In addition, a test to determine color blindness and extent would be most beneficial as color determination is now vital to performance in many industries such as printing, electronic and automotive. A more comprehensive physical examination should also be considered as in many cases industry is reluctant to hire persons that may have defects, etc. that could lead to personal injury in a hazardous area. For example, a person that may be subject to seizures or has vision in only one eye.
2. Engineering Technology X a. Two-year programs X b. One-year programs c. Less than one year	
3. Health Technology a. Two-year programs X b. One-year programs c. Less than one year	
4. Communications & Humanities a. Two-year programs b. One-year programs c. Less than one year	
5. Natural Science & Math a. Two-year programs b. One-year programs c. Less than one year	
6. Public Service Technology a. Two-year programs b. One-year programs c. Less than one year	

7. Social Science a. Two-year programs b. One-year programs c. Less than one year	

Danville Community College

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
2. Engineering Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
3. Health Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
4. Communications & Humanities	In all three areas (a.,b.,c.), the following should be measured: vocabulary; spelling; grammar and standard usage; and reading comprehension, skill, and speed. In addition, in the two-year programs there should be some provision for measuring writing skill, competence, and expression.
a. Two-year programs	
b. One-year programs	
c. Less than one year	
5. Natural Science & Math	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
6. Public Service Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	

7. Social Science a. Two-year programs b. One-year programs c. Less than one year	In addition to communications skills, some provision should be made for measuring accumulated and retained knowledge in the social sciences.

Danville Community College

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science a. Two-year programs b. One-year programs c. Less than one year 2. Engineering Technology a. Two-year programs b. One-year programs c. Less than one year 3. Health Technology a. Two-year programs b. One-year programs c. Less than one year 4. Communications & Humanities a. Two-year programs b. One-year programs c. Less than one year 5. Natural Science & Math a. Two-year programs b. One-year programs c. Less than one year 6. Public Service Technology a. Two-year programs b. One-year programs c. Less than one year	ENGINEERING TECHNOLOGY- COLLEGE PARALLEL PROGRAM From our past experience with freshman pre-engineering students, it would appear that in general the mathematics aptitude tests have been of great help in determining capabilities when these tests are used in conjunction with high school achievement. However, many students with a satisfactory mathematicial aptitude do not succeed or do poorly in pre-engineering programs. I believe that the greatest single cause of this is the lack of understanding on a student's part of the function of the engineer and the educational requirements for such a degree. We have many students with mechanical skills who enter the program rather than a program for technicians. Therefore, I believe that a major testing requirement should be a preference test. I know that such tests are available in high school; but, I believe that we should utilize these tests so that our own guidance counselors will have a better indication of the student's desires. Also, while I do not know of such a test, we do need some measure of a student's over-all initiative. This is improtant because of the demanding nature of the pre-engineering program.

Danville Community College

7. Social Science a. Two-year programs b. One-year programs c. Less than one year	

Danville Community College

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science a. Two-year programs b. One-year programs c. Less than one year 2. Engineering Technology a. Two-year programs b. One-year programs c. Less than one year 3. Health Technology a. Two-year programs b. One-year programs c. Less than one year 4. Communications & Humanities a. Two year programs b. One-year programs c. Less than one year *5. Natural Science & Math a. Two-year programs b. One-year programs c. Less than one year 6. Public Service Technology a. Two-year programs b. One-year programs c. Less than one year	NATURAL SCIENCE AND MATHEMATICS - COLLEGE PARALLEL PROGRAMS Because of the wide range of subjects covered in the natural science and mathematics area, I think here we need to break down any measurements into two areas. (1) Those students majoring in the more scientific work such as mathematics, physics, chemistry, etc. Here it would appear that the most important test would still be the mathematics aptitude. (2) Those students majoring in work such as biology, agriculture, pre-meds, etc. I would think that a general science aptitude would be more important since the mathematical requirements in these are not too rigorous. As in any college program, I still believe that the most important test, once it is ascertained that the student has the mental capability, is a preference test of some sort so that our guidance counselors can better locate students before they enroll in a course of study without fully understanding the end results of such a course. As an example, every year several students enroll in a mathematics program who either have no understanding of what a mathematician does or do not realize the extent of the mathematics requirement for such a degree.

7. Social Science a. Two-year programs b. One-year programs c. Less than one year	

Frederick Community College

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science	
a. Two-year programs	High School equivalency training, Math through Algebra, Standard ACT test scores in English: Basic writing skills 12th grade level, and High School level reading ability
b. One-year programs	Basic high school reading ability, ability to communicate simple answers in writing.
c. Less than one year	
2. Engineering Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
3. Health Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
4. Communications & Humanities	
a. Two-year programs	Reading ability,*English language usage
b. One-year programs	Reading ability *English language usage
c. Less than one year	*Grammar, syntax, vocabulary, etc.
5. Natural Science & Math	
a. Two-year programs	1. The ability to read and comprehend Math and Science at the high school level, and preferably special areas in the Natural Sciences.
b. One-year programs	2. The ability to solve problems in Algebra, plane Geometry and Modern Math. Some Trig. might be desired.
c. Less than one year	3. A working knowledge of Mans Biology and that of the living world about him.
6. Public Service Technology	
a. Two-year programs	
b. One-year programs	
c. Less than on year	

7. Social Science a. Two-year programs b. One-year programs c. Less than one year	12th grade reading and writing ability, ability to express simple thoughts in writing. b. & c. would depend upon the nature of the program. (For example: Welding would probably require only the ability to read the instructions in the Welding Manuals.) If the program requires in its general education requirements, a course in Social Science, I would think 10th grade reading ability would be appropriate.

JOHN TYLER COMMUNITY COLLEGE

1. BUSINESS SCIENCE

a. (A.S.) Business Administration

1. average or above reading ability
2. Algebra I, II, and geometry from high school
3. lab science in high school
4. average or above language usage both oral and written
5. potential of completing four-year degree

(A.A.S.) Accounting

1. paying attention to detail
2. ability to follow instructions
3. good arithmetic; one unit of algebra
4. average reading ability
5. legibility

(A.A.S.) Business Management

1. average reading ability
2. good arithmetic; one unit of algebra
3. ability to get along with people
4. ability to follow instructions
5. average language usage both oral and written

(A.A.S.) Secretarial Science

1. some degree of dexterity
2. work well with other people
3. average reading ability
4. language skills, written and spoken

1. BUSINESS SCIENCE (Con't)

5. phonetic principles

6. good arithmetic and at least one unit of algebra

7. ability to follow directions

c. Key Punch Certificate

1. Typing ability and finger dexterity

2. reasoning ability (common sense)

3. reading ability

(A.A.S.) Data Processing

a. Data Processing (Computer Programmer)

Attitudes - Predispositions

1. Liking for puzzles, challenges, problem solving

2. Attentive to detail (not necessarily all the time but when required)

3. Patience with detail

4. Aggressive in learning ("nit-picker", persistent to have the complete answer)

5. Satisfied working alone

Abilities

1. Can reason (logic ability)
   a. can construct order with words
   b. can construct order with symbols

2. Space relations (perception)

3. Above average reading comprehension

JOHN TYLER COMMUNITY COLLEGE

1. BUSINESS SCIENCE (Cont'd)

(A.A.S.) Data Processing

Physical

No - severe speech problems
deaf
cannot take prolonged periods of sitting, concentrated reading, writing, listening

Yes - some degree hearing difficulty
confined - wheelchair

(employment depends on finding an employer willing to accomodate the handicap)

b., c. Data Processing Operator's Certificate

Physical

1. full muscular coordination
2. able to be on feet for eight hours
3. hearing, vision - normal
4. slight only, speech difficulty

Disposition

1. liking things mechanical
2. satisfied with routine repetitive work

Skills

1. average verbal and math skills

JOHN TYLER COMMUNITY COLLEGE

2. ENGINEERING TECHNOLOGIES

a. (A.A.S.) General Qualifications:

1. Average in terms of academic ability as based on the high school level.

2. Average ability in mathematics, science, and space perception, but with an interest in the practical application of these skills to a particular field of technology. These areas can be ascertained from standardized tests that are given to students entering this program.

3. The engineering technology student should have the maturity and personal characteristics which enable him to work for and with others.

4. He should be able to form judgements and function effectively without excessive reliance upon others.

(Two-year certificate) General Qualifications:

Machine Operator and Machinist Certificate

Superior mechanical aptitude and temperament suited for highly accurate work requiring concentration and physical effort; background in mathematics and physics and some knowledge of electronics and hydraulics helpful.

b. (One-year certificates) General Qualifications:

Drafting

Ability and temperament suited to precise and disciplined work, following specifications which are often rather intricate; ability to visualize dimensions; good eyesight, manual dexterity, and good hand-eye coordination; background in mathematics, physical sciences, shop practice and skills important.

Welding

Familiarity with the properties of metals, blueprint reading, basic mathematics, electrical principles, and welding symbols; manual dexterity and steadiness, good vision, good coordination; physical strength required in some operations.

JOHN TYLER COMMUNITY COLLEGE

2. ENGINEERING TECHNOLOGIES (Con't)

Machine Operator Certificate

Superior mechanical aptitude and temperament suited for highly accurate work requiring concentration and physical effort; background in mathematics and physics and some knowledge of electronics and hydraulics helpful.

JOHN TYLER COMMUNITY COLLEGE

3. HEALTH TECHNOLOGY

a. 1. Language usage-written and oral (reading-average and above)

2. Good arithmetic and algebra I and II skills

3. Good reasoning (analysis perception)

4. Dexterity

5. Science, high school level (chemistry, biology)

JOHN TYLER COMMUNITY COLLEGE

4. COMMUNICATIONS & HUMANITIES - English

a. 1. strong reading ability

2. above average ability of expression both written and oral

3. strong motivation

4. strong aptitudes in literature, composition, grammar, and spelling

5. average knowledge of self-concept and self-placement

6. ability for self-study

b. 1. average to strong reading ability

2. average ability of expression both written and oral

3. average motivation

4. average aptitudes in composition, grammar, and spelling

c. 1. average reading ability

2. average ability of expression both written and oral

3. some motivation

4. some aptitude in English

Communications & Humanities - Languages

a. 1. strong concept of English composition and grammar

2. strong reading ability

3. strong motivation and self-expression

4. ability for self-study

5. average to strong reading-writing and listening skills

b. Same as above - high school language required

c. N/A

JOHN TYLER COMMUNITY COLLEGE

5. NATURAL SCIENCE & MATH

a., b., c.

Biology

1. The student needs to be able to read.

Chemistry

1. The student needs to have a math background through two years of algebra and geometry.

2. A background course in high school chemistry is recommended but not essential.

Physics

1. The student needs to have a math background in algebra, geometry, and trigonometry.

2. A background in physics is recommended but not essential.

Mathematics

1. Average or above reading skills

2. Ability to reason in a problem solving manner

3. Transfer ability

4. Ability to follow directions and organize material

JOHN TYLER COMMUNITY COLLEGE

6. PUBLIC SERVICE TECHNOLOGY

a. N/A

b. N/A

c. N/A

JOHN TYLER COMMUNITY COLLEGE

7. SOCIAL SCIENCE

a. 1. Reading comprehension, at least English III

2. Writing skill, at least English 101

b. 1. Same reading comprehension

2. Some writing skill

c. Same as "b"

New River Vocational Technical School

Programs Offered	Areas of Skills, Potential, or Aptitudes to be Measured
. Business Science one year program clerk-typing clerk-stenography	1. Intelligence - General learning ability - the ability to reason and make judgments. 2. Form perception - ability to perceive pertinent detail in objects or in pictorial or graphic material. Ability to make visual comparisons and discriminations and see slight differences in shapes and shadings of figures and widths and lengths of lines. 3. Clerical perception - ability to perceive pertinent detail in verbal or tabular materials. Ability to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation. 4. Motor coordination - ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and swiftly. Probably related to reaction time. 5. Tests Used: GATB - no cost to student Time - 2½ hours Business English Test - of the Dailey Vocational Tests - Houghton Mifflin BET - cost - .15+ Time - 30 minutes Application - for academic and vocational guidance for screening applicants to business and technical schools. For selection and placement. Comprehensive test of spelling, punctuation, capitalization, and grammar. ACT - Community College Guidance Profile cost - .35 Time - .45 Six sections to measure educational and vocational aspirations, self-estimates of abilities and personal traits.

Programs Offered	Areas of Skills, Potential, or Aptitudes to be Measured
	vocational interests activities and potentials competencies special educational needs 6. Use is made of cumulative information from the secondary school
2. Engineering Technology Auto Mechanics two year program	1. Intelligence - general learning ability. The ability to "catch on" or understand instructions and underlying principles; the ability to reason and make judgments. 2. Spatial Aptitude - ability to think visually of geometric forms and to comprehend the two-dimensional representation of three-dimensional objects. The ability to recognize the relationship resulting from movement of objects in space. 3. Finger Dexterity - ability to move the fingers, and manipulate small objects with the fingers, rapidly or accurately. 4. Tests Used: GATB - cost free Time - 2½ hours. ± Technical and Scholastic Test of the Dailey Vocational Test. cost - .20 ± Time - 65 minutes The mechanical scale is used with the examiner interested in working as a machinist, automobile or machinery repairman, diesel or airplane mechanic, or in a related job. COOP - American College Test Where needed: cost - .35 Time - 45 minutes 5. Personal interest and motivation - observed through interviewing.

Programs Offered	Areas of Skills, Potential, or Aptitudes to be Measured
3. Drafting & Design two year program	Interest, temperment and personality are considered. Other Aptitudes 1. Intelligence - average and above 2. Numerical Aptitude - ability to perform arithmetic operations quickly and accurately. 3. Spatial Aptitude - ability to visualize the appearance of a two-dimensional figure if folded into three dimensions. The ability to recognize the relationships resulting from movement of objects in space. 4. Tests used: GATB - for all students <u>Spatial Visualization Test</u> of the Dailey Vocational Tests. Time - 20 min. <u>CCGP - of ACT</u> for some students
4. Electrical Area Electrician two year program	1. Intelligence - average 2. Numerical ability - ability to perform number operations quickly and accurately. Background in Algebra and Geometry. 3. Spatial Aptitude - the ability to manipulate two-dimensional figures mentally and create the three-dimensional structure in his mind. 4. Finger Dexterity - ability to move the fingers, and manipulate small objects with the fingers, rapidly or accurately. 5. Test for Color Blindness
5. Electronics two year program	1. Intelligence - high average

Programs Offered	Areas of skills, Potential, or Aptitudes to be Measured
	2. Verbal aptitude - the ability to understand meaning of words and ideas associated with them, and to use them effectively. The ability to comprehend language, to understand relationships between words and to understand meanings of whole sentences and paragraphs. The ability to present information or ideas clearly. 3. Numerical ability - in addition to a strong math background - Algebra and Geometry are required. 4. Spatial aptitude - The ability to manipulate figures mentally and create the three-dimensional structure in his mind. 5. Finger Dexterity - Ability to move fingers rapidly and accurately. 6. Color discrimination - ability to recognize color and distinquish between different shades of the same color.
6. Instrumentation two year program	1. Intelligence - average 2. Aptitudes - same as for Electronics 3. In addition - Form perception is important. Ability to perceive pertinent detail in objects or inpictorial or graphic material. Ability to make visual comparisons and discriminations and see slight difference in shapes and shadings of figures and widths andlength of lines.
7. Machinist two year program	1. Intelligence - average and low average may succeed in varing degrees. 2. Numerical ability - ability to master the fou operations with numbers - especially fraction. 3. Spatial aptitude - ability same as in above dfinition. 4. Manual Dexterity - ability to move the hands eily and skillfully. Ability to work with the hans in placing and turning motions. 5. Parts of the GATB and Bailey Tests are used.

Programs Offered	Areas of Skills, Potential, or Aptitudes to be Measured
8. Health Technology	
one year program	1. Motivation and particular interest in working with people
	2. Ability to accept responsibility - dependable
	3. Emotionally stable
	4. Intelligence - average
	5. Verbal aptitude - same as previously defined
	6. Spatial aptitude
	7. Finger Dexterity
	8. Motor Dexterity
	9. Numerical Ability

NORTHERN VIRGINIA COMMUNITY COLLEGE

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science a. Two-year programs b. One-year programs c. Less than one year	Creativity, logical analytical ability, quantitative and verbal are all important in all programs. Data processing and secretarial also require testing with regard to potential in such specific skills as programming, typing, shorthand. Another field important to all is potential or skill in reading speed-comprehension.
2. Engineering Technology a. Two-year programs	Aptitudes: Ability to think in a logical way and to define and state a problem as clearly as possible. Potential: General knowledge of the specific field of science in which engineers operate and their aims - Skills: Math: Up to trigonometry English: Capable to read, understand and communicate. Science: A general understanding and knowledge of the world surrounding us -
b. One-year programs	Aptitudes: Same as above (2 years) Potential: Same as above (2 years) Skills: Math: Up to algebra or, at least, good knowledge of arithmetic English: Same as above (2 years) General: Ability to control and/or teach their hands to acquire a practical skill (drafting, repairing, etc.)
c. Less than one year	

3. Health Technology a. Two-year programs b. One-year programs c. Less than one year	Potential for social intelligence: judgment in social situations; memory for names and faces; observation of human behavior, interpretation of mental state from spoken or written words; assumption of modified leadership role in work setting. Aptitudes: scientific vocabulary; visual memory; comprehension and retention; ability to follow directions; basic problem-solving technics; basic mathematical skills. Skills: ability to understand and to use relatively complex equipment; average ability in procedural (manual) skills; average to above average ability to work with patients, families, and co-workers in situations of physical and emotional stress.
4. Communications & Humanities a. Two-year programs b. One-year programs c. Less than one year	In the area of English, the skills, potential and aptitudes are as follows: Reading ability Writing ability Vocabulary and spelling Languages: All language students are given aptitude tests. We use the Pimsleur aptitude battery. We also test for achievement and placement purposes. We give the MLA test and our own placement test. In the achievement test we look for comprehension and discrimination ability; Listening, speaking, reading and writing ability and manipulation of structure. In the aptitude test we look for sound discrimination, sound/symbol association, ability for language analysis and interest in learning a foreign language.

5. Natural Science & Math

   a. Two-year programs

   b. One-Year programs

   c. Less than one year

Success in Science and Mathematics shows high correlation with verbal reasoning, numerical ability, abstract reasoning , and certain aspects of language usage.

Space relations and mechanical reasoning may show some correlation.

6. Public Service Technology a. Two-year programs b. One-year programs c. Less than one year	POLICE SCIENCE AND FOOD SERVICE Potential: judgment in social situations; memory for names and faces; observation of human behavior; assumption of modified leadership role in work setting. Aptitudes: physical fitness; visual memory; comprehension and retention; ability to follow directions; basic problem solving techniques; basic computational skills. Skills: average ability in procedural (manual) skills; above average ability to work with people of all ages in situations of physical and emotional stress.
7. Social Science a. Two-year programs	ECONOMICS Potential: General and specific knowledge of the operation of the economic field Aptitudes: Ability to do conceptual and critical thinking Skills: Development of the conceptual tools of analysis which enable him to understand the measures and objectives of national and international economic policies GOVERNMENT Potential: Development of the ability to read and think government matters critically. Aptitudes: Recognize the permeating role of government into every conceivable individual activity Skills: Understand the rationale for the system of government employed in the U.S. HISTORY Potential: Understanding of historical background Aptitudes: Ability to select, organize, and present historical subject matter Skills: Development of skill in the use of historical tools and learning of techniques of re-

Social Science cont.

PSYCHOLOGY/SOCIOLOGY

Potential:	Awareness of the basic psychological problems
Aptitudes:	Development of an understanding of the basic principles of perception, learning, and motivation
Skills:	Ability to make reasonably valid analyses of the factors involved in everyday adjustment problems, as described in life situations and the ability to identify and explain the significant factors involved.

PROGRAMS OFFERED BY SYSTEM

1. Business Science
   a. Two-year programs
   b. One-year programs
   c. Less than one year
2. Engineering Technology
   a. Two-year programs
   b. One-year programs
   c. Less than one year
3. Health Technology
   a. Two-year programs
   b. One-year programs
   c. Less than one year
4. Communications & Humanities
   a. Two-year programs
   b. One-year programs
   c. Less than one year
5. Natural Science & Math
   a. Two-year programs
   b. One-year programs
   c. Less than one year
6. Public Service Technology
   a. Two-year programs
   b. One-year programs
   c. Less than one year
7. Social Science
   a. Two-year programs
   b. One-year programs
   c. Less than one year

WHAT ARE THE AREAS OF SKILLS, POTENTIAL, OR APTITUDE TO BE MEASURED?

TECHNOLOGY PROGRAMS

I. Areas that should be tested
   1. Reading and Comprehensive ability
   2. Numerical reasoning
   3. Perception - spatial relationship
      form perception
   4. Mathematics aptitude
   5. Abstract Reasoning
   6. *Finger and Manual Dexterity
   7. *Motor Coordination
   8. Communicative skills

II. Personal qualitites requisite for success in all motivation, creativity, personality, emotional stability, maturity.

III. Physical areas that should be tested
   1. Vision, hearing, severe speech impediment, fainting or any form of seizures, work position must be considered.

*Not as important for Business Technology as it is for other technologies.

SOUTHWEST VIRGINIA COMMUNITY COLLEGE

SUBMITTED BY:

A. C. Wilson
April 7, 1969

Programs Offered By System	WHAT ARE THE AREAS OF SKILLS, POTENTIAL, OR APTITUDE TO BE MEASURED?
1. Business Science	
a. Two-year programs	SECRETARIAL SCIENCE - Two-Year Program (A.A.S.)
b. One-year programs	1. Verbal - tests for written and oral communication skills with emphasis on mechanics; ability to read and follow directions; ability to communicate orally. If student found lacking in any of these areas, foundation English should be taken before admittance to the program.
c. Less than one year	2. Quantitative - ability to perform simple arithmetic computations and to reason logically.
2. Engineering Technology	3. Vocational interest and personality testing.
a. Two-year programs	4. Aptitude testing for finger dexterity and ability to develop skill in routine tasks
b. One-year programs	
c. Less than one year	STENOGRAPHY CERTIFICATE - One-Year Program
3. Health Technology	1. Verbal testing for both written and oral communication. Emphasis on mechanics; ability to read and follow directions.
a. Two-year programs	2. Quantitative - ability to perform simple arithmetic computations and to reason logically.
b. One-year programs	3. Vocational interest.
c. Less than one year	4. Aptitude testing for finger dexterity and skill in performing routine tasks
4. Communications & Humanities	CLERK-TYPIST CERTIFICATE - Three-Quarter Program
a. Two-year programs	1. Vocational interest testing.
b. One-year programs	2. Ability to perform simple arithmetic computations.
c. Less than one year	3. Finger Dexterity and skill in performing routine tasks.
5. Natural Science & Math	SOUTHWEST VIRGINIA COMMUNITY COLLEGE
a. Two-year programs	SUBMITTED BY:
b. One-year programs	A. C. Wilson
c. Less than one year	April 7, 1969
6. Public Service Technology	
a. Two-year programs	
b. One-year programs	
c. Less than one year	
7. Social Science	
a. Two-year programs	
b. One-year programs	
c. Less than one year	

PROGRAMS OFFERED BY SYSTEM	WHAT ARE THE AREAS OF SKILLS, POTENTIAL, OR APTITUDE TO BE MEASURED?
1. Business Science a. Two-year programs b. One-year programs c. Less than one year 2. Engineering Technology a. Two-year programs b. One-year programs c. Less than one year 3. Health Technology a. Two-year programs b. One-year programs c. Less than one year 4. Communications & Humanities a. Two-year programs b. One-year programs c. Less than one year 5. Natural Science & Math a. Two-year programs b. One-year programs c. Less than one year 6. Public Service Technology a. Two-year programs b. One-year programs c. Less than one year 7. Social Science a. Two-year programs b. One-year programs c. Less than one year	CERTIFICATE PROGRAMS I. Areas that should be tested 1. Vocational interest 2. Motor Coordination 3. Finger and Manual Dexterity 4. Reading and comprehension ability 5. Perception - Spatial relationship 6. Arithmetic Competence II. Physical areas that should be tested 1. Vision 2. hearing 3. Severe speech Impediment 4. Fainting or any form of seizures 5. Work position limitations III. Personal qualities desired 1. Interest 2. Initiative 3. Motivation 4. Creativity SOUTHWEST VIRGINIA COMMUNITY COLLEGE SUBMITTED BY: A.C.WILSON APRIL 7, 1969

VIRGINIA WESTERN COMMUNITY COLLEGE

Programs Offered by System	What are the areas of skills, potential, or aptitudes to be measured?
1. Business Science	
a. Two-year programs	English (Reading, Comp., Spelling, Writing) Manipulative Skill
b. One-year programs	We do not offer
c. Less than one year	We do not offer
2. Engineering Technology	
a. Two-year programs	Math, Reading, Manipulative Skills
b. One-year programs	Manipulative Skills
c. Less than one year	We do not offer
3. Health Technology	Dental Assistant
a. Two-year programs	We do not offer
b. One-year programs	Manipulative Skill, Personality, Health
c. Less than on year	
4. Communications & Humanities	
a. Two-year programs	Verbal skills, English Comp.
b. One-year programs	
c. Less than one year	
5. Natural Science & Math	Math, Verbal skills
a. Two-year programs	
b. One-year programs	
c. Less than one year	
6. Public Service Technology	Police Science
a. Two-year programs	Personality, Health, Verbal
b. One-year programs	
c. Less than one year	

7. Social Science	
a. Two-year programs	Verbal ability
b. One-year programs	
c. Less than one year	